

Institute for  
Fiscal Studies

## *Tax By Design: The Mirrlees Review*

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Earnings Taxation and Work Incentives

Richard Blundell, UCL and IFS

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## Our guiding principles

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- The personal tax and benefit system should be progressive, coherent and transparent
- It should be designed to reflect the shape of the income distribution and responses to work incentives
- It will need to take much of the strain of distributional adjustments from other parts of the reform package

## Where do we start from?

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1. A highly complex array of welfare benefits and tax credits
  - which do not fit together well
  - are difficult and costly for people to deal with
  - impose some very high effective tax rates on low earners
2. An income tax system that is opaque and unnecessarily complex
  - a bizarre marginal rate structure
  - two entirely separate taxes on earnings – income tax, employee and employer contributions (NICs)
3. A system that does not take proper account of what we know about how different people respond to tax incentives

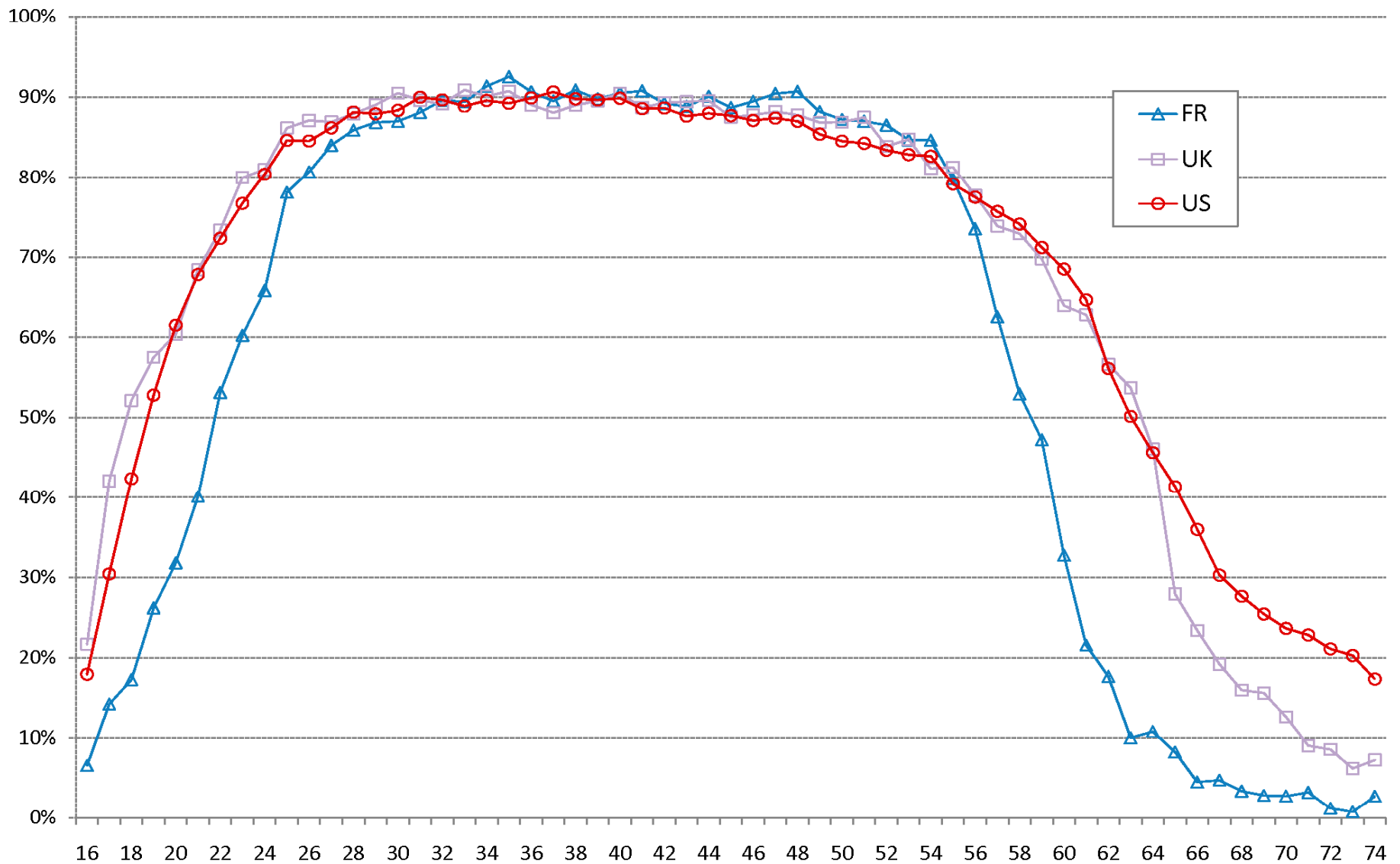
# How did we arrive at our recommendations?

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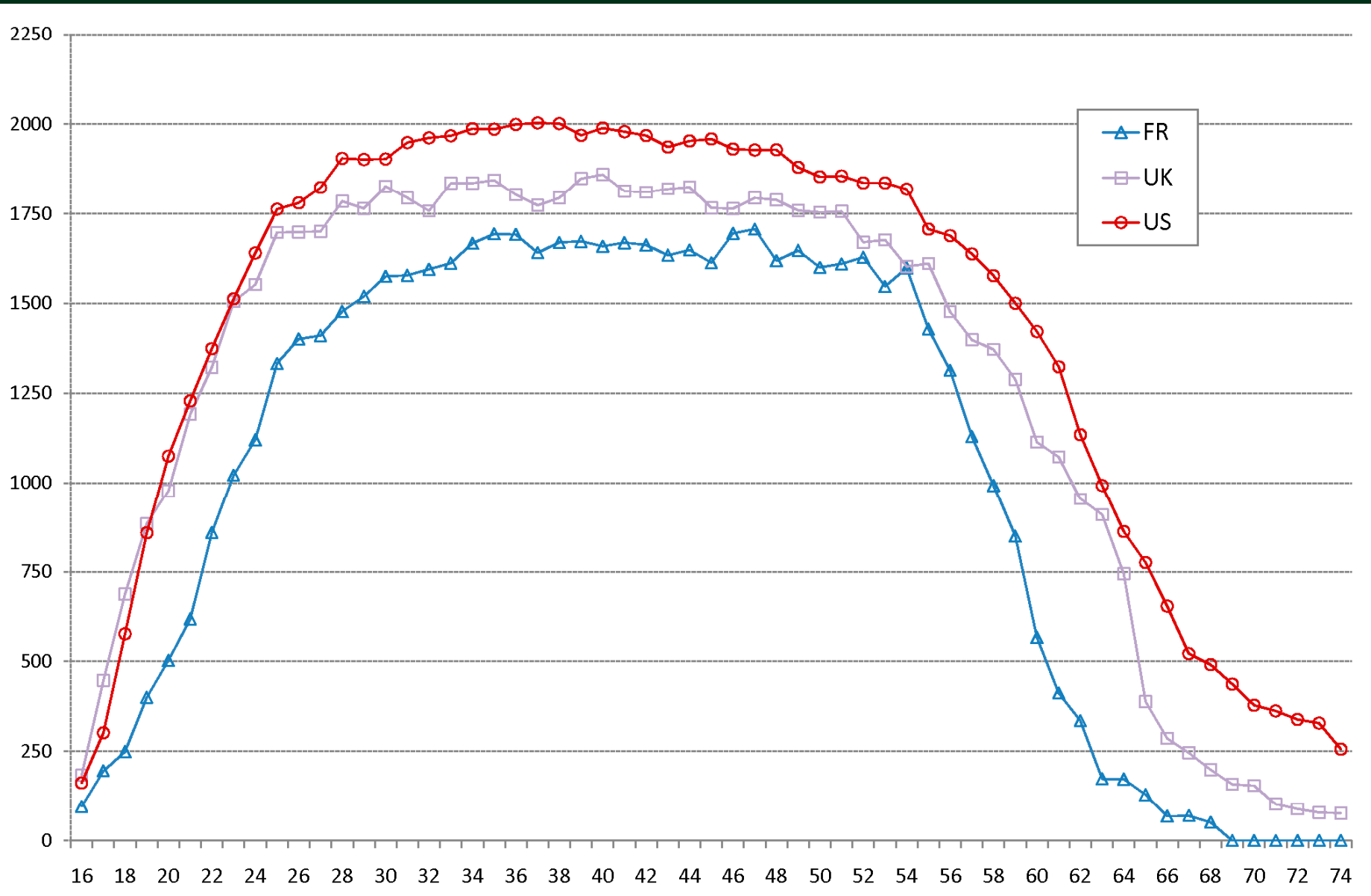
Five steps.....

1. Key margins of adjustment to tax reform
2. Measurement of effective tax rates
3. The importance of information and complexity
4. Evidence on the size of responses
5. Implications from theory for tax design

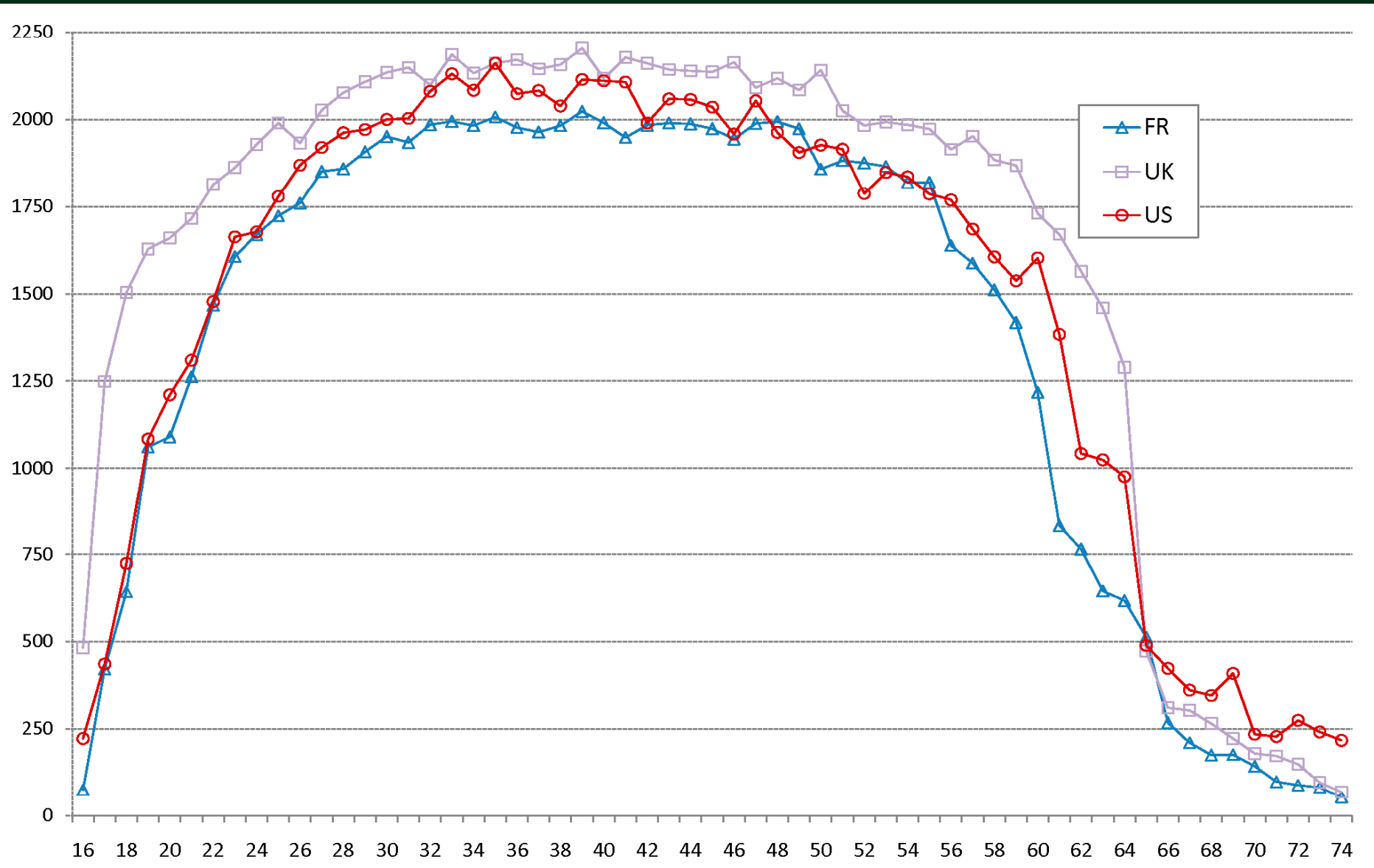
# Figure 3.2a Employment for men by age, FR, UK and US 2007



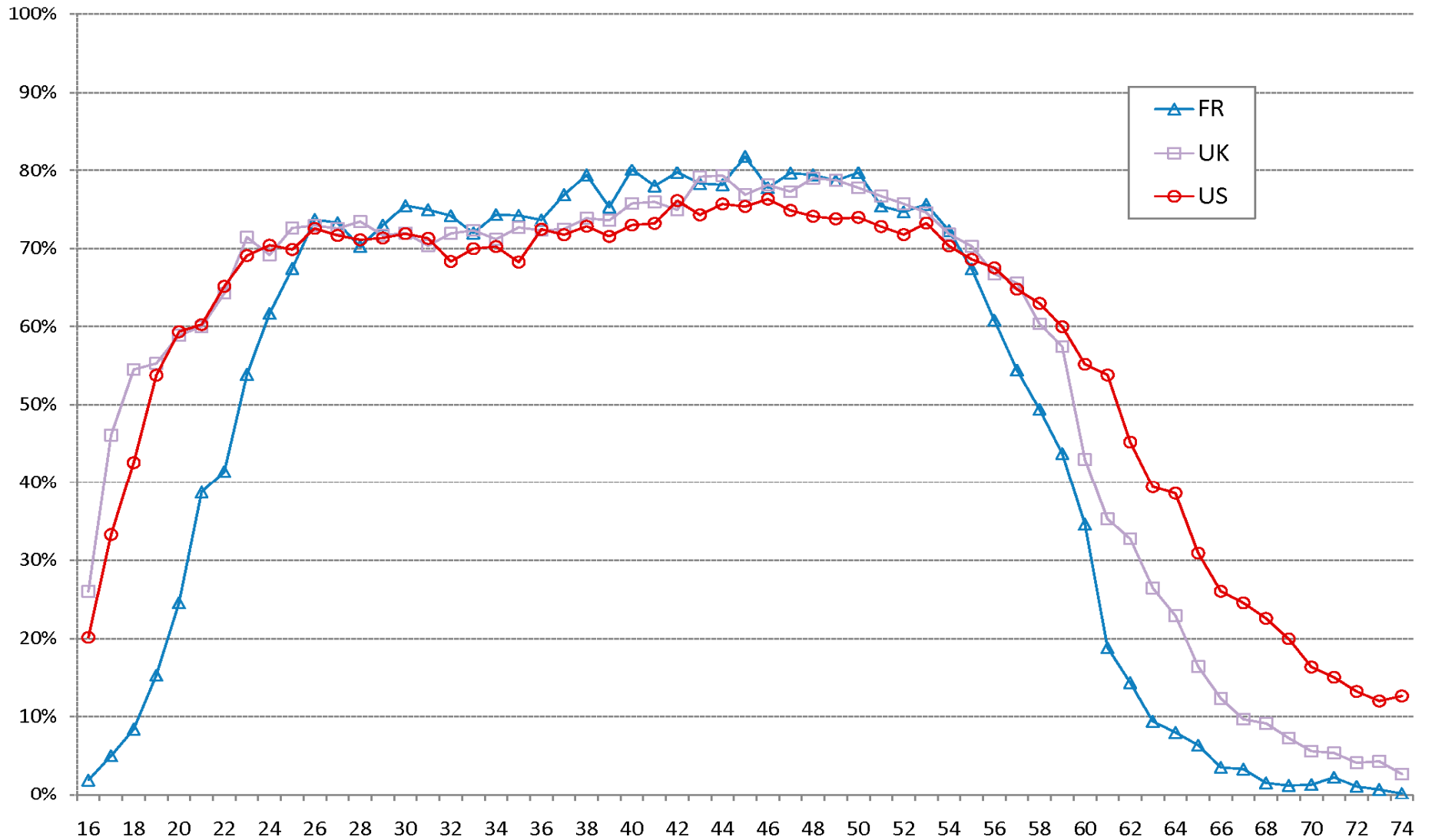
# Total Hours for men by age – FR, UK and US 2007



# Total Hours for men by age – FR, UK and US 1977

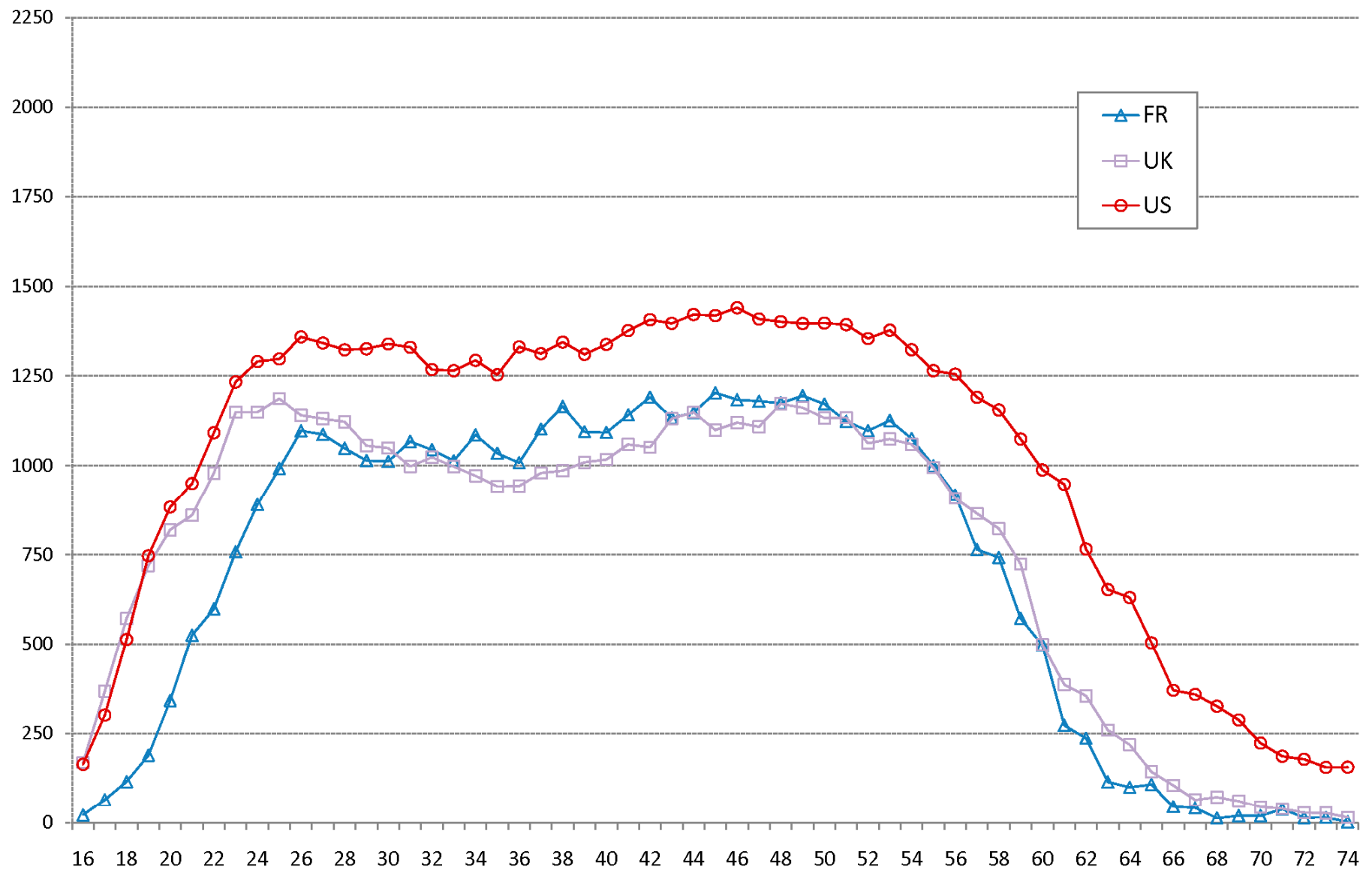


# Figure 3.2b: Female Employment by age: US, FR and UK 2007





# Female Total Hours by age – US, FR and UK 2007



# What do we know about how people respond to taxes and benefits?

- Taxes reduce labour supply
  - substitution effects are generally larger than income effects
- And, especially for low earners,
  - responses are larger at the extensive margin—employment
  - than at the intensive margin—hours of work
- These responses are largest for
  - women where the youngest child is school-age
  - those aged over 55
- Other responses affecting taxable income matter
  - certainly for the rich

## Why is this important for tax design?

1. Suggests where should we look for responses to tax reform.
2. Some key lessons from recent tax design
  - Importance of extensive labour supply margin (Heckman, Prescott/Rogerson, Wise, ..)
    - perhaps too much
  - A 'large' extensive elasticity can 'turn around' the impact of declining social weights
    - implying a higher transfer to low wage workers than those out of work
    - a role for earned income tax credits
3. Importance of margins other than labour supply
  - e.g. taxable income elasticities (at the top)

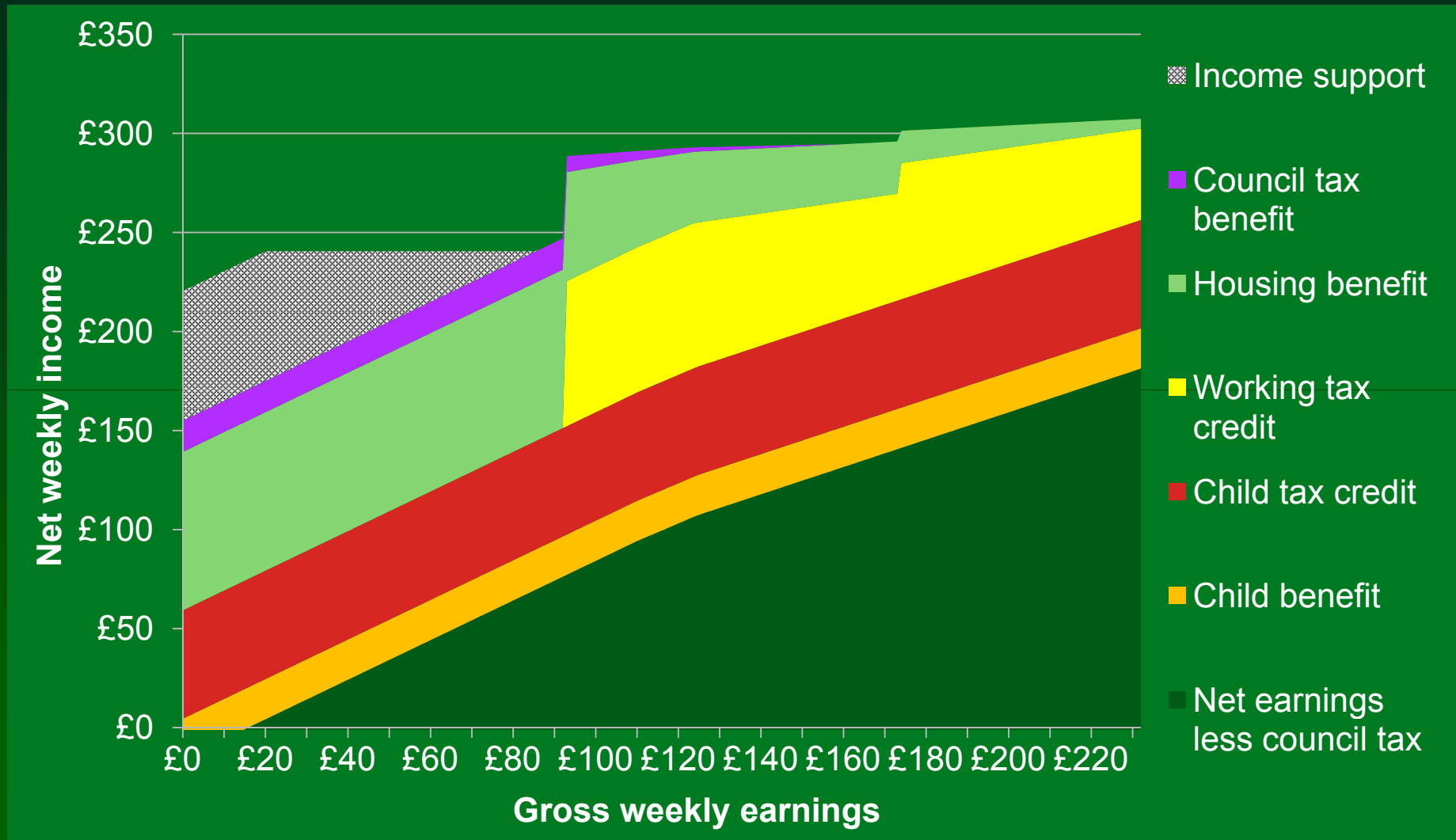
## Turn first to tax rates on lower incomes

### Main defects in current welfare/benefit systems

- Participation tax rates at the bottom remain very high in UK and elsewhere
- Marginal tax rates in the UK are well over 80% for low income working families because of phasing-out of means-tested benefits and tax credits
  - Working Families Tax Credit + Housing Benefit + etc
  - and interactions with the income tax system
  - For example, we can examine a typical budget constraint for a single mother...

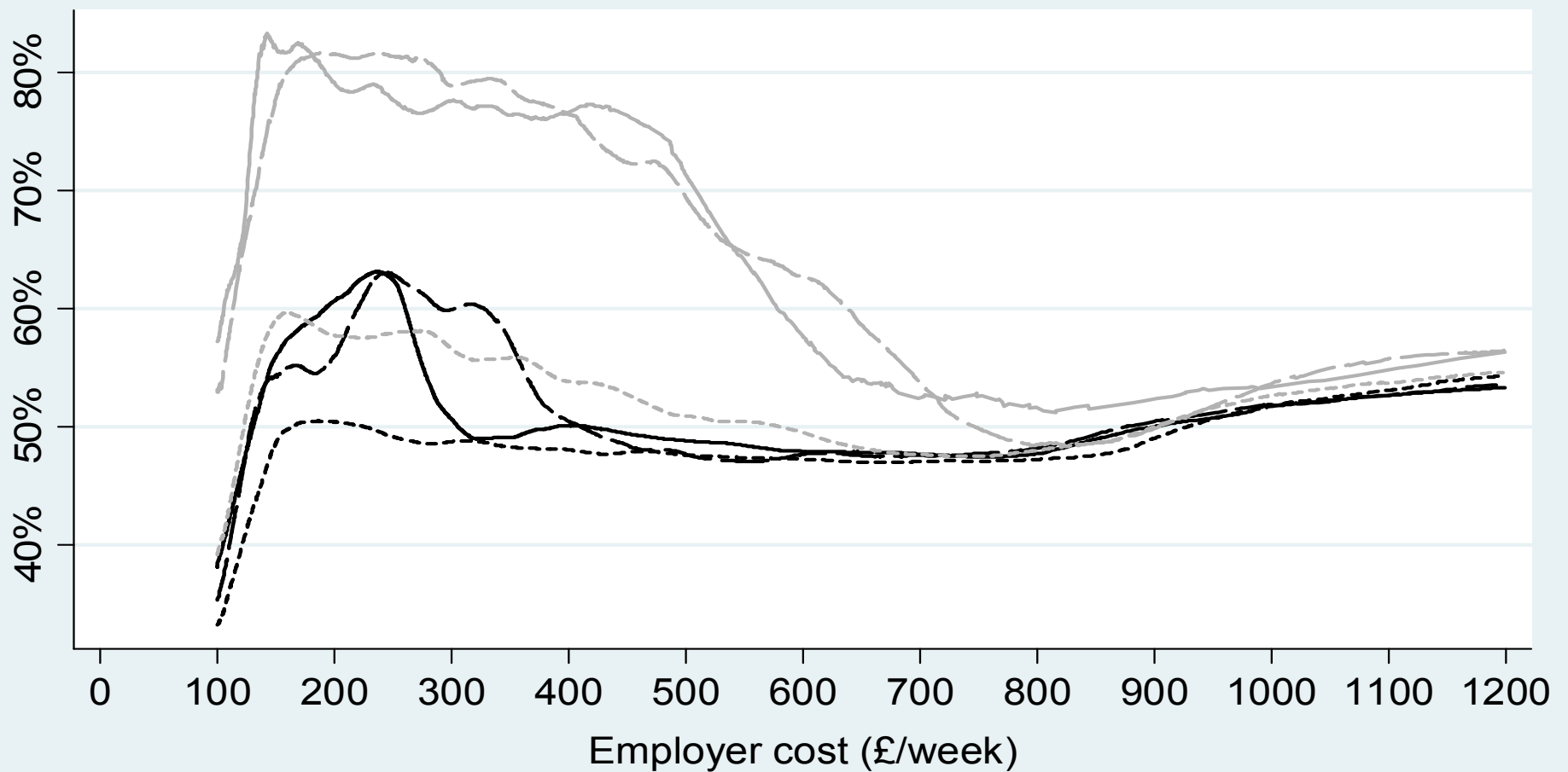


# The interaction between taxes, tax credits and benefits



Notes: Lone parent, with one child aged between one and four, earning the minimum wage (£5.80 per hour), with no other private income and no childcare costs, paying £80 per week in rent to live in a council tax Band B property in a local authority setting council tax rates at the national average.

# Average EMTRs for different family types



— Single, no children

- - - Partner not working, no children

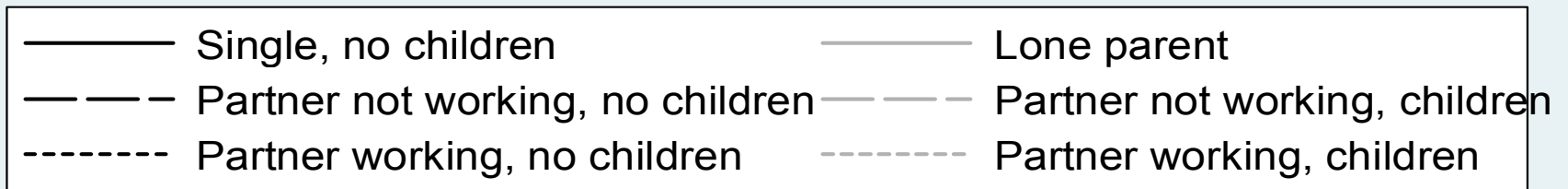
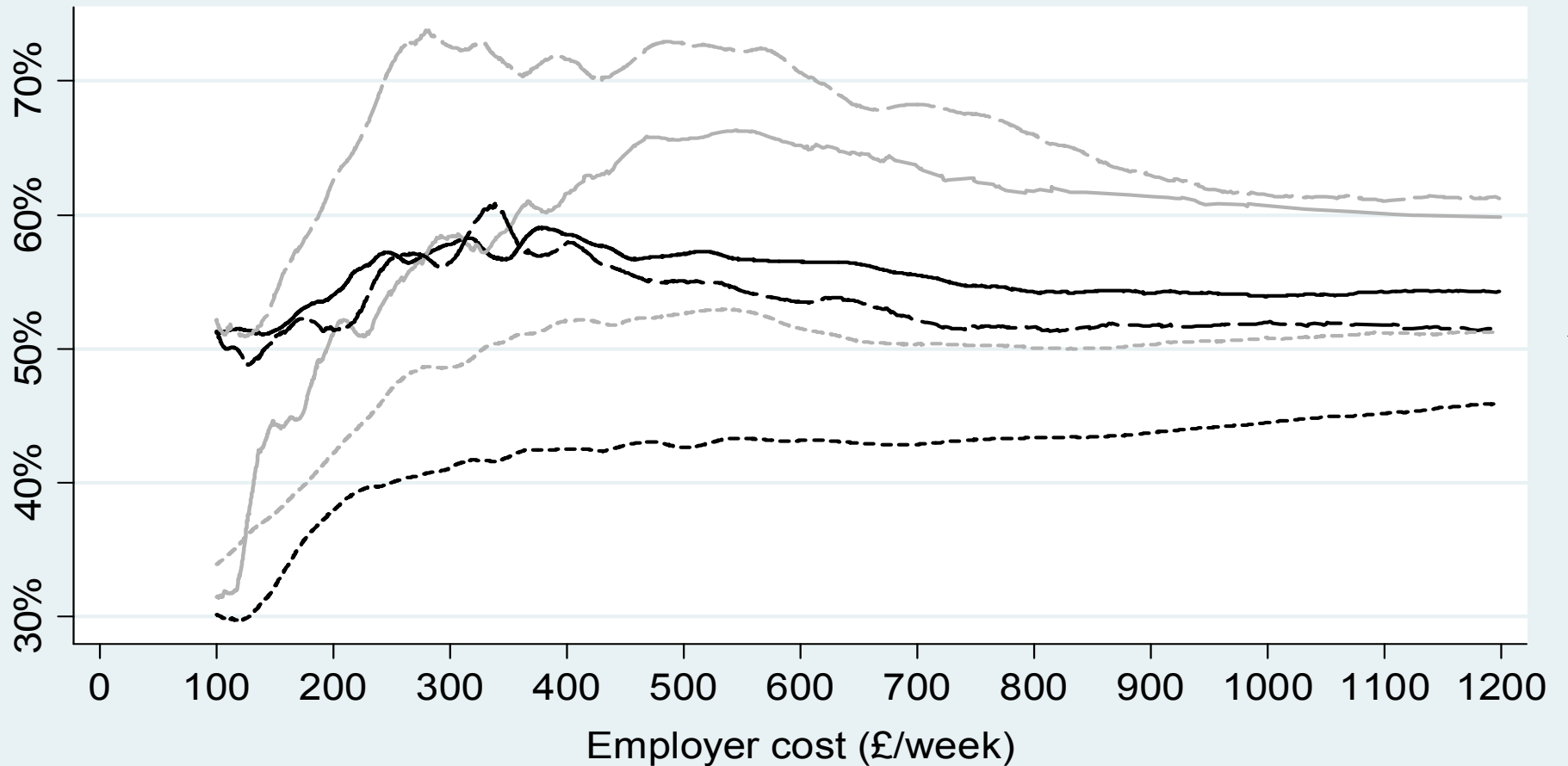
..... Partner working, no children

— Lone parent

- - - Partner not working, children

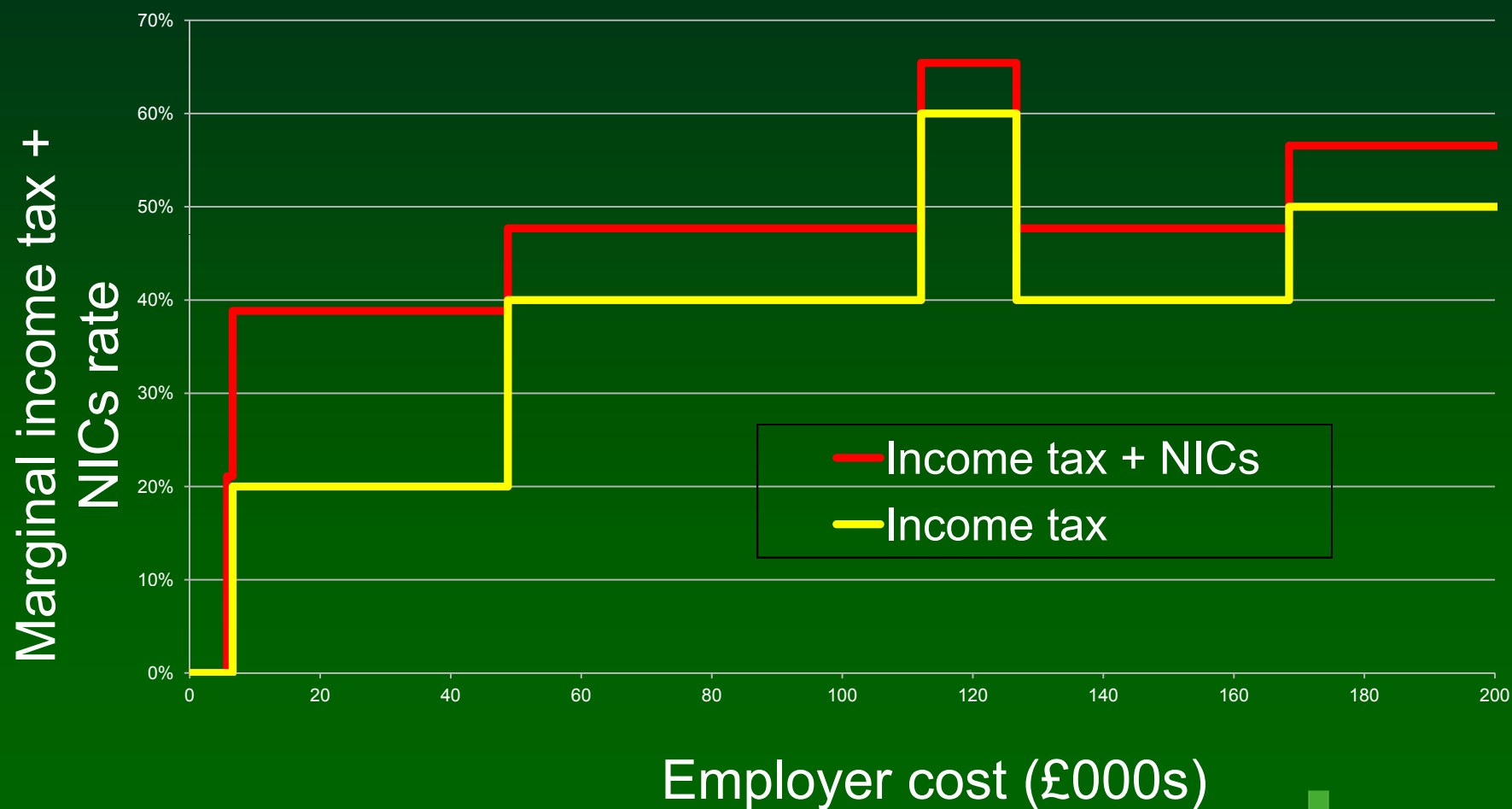
..... Partner working, children

# Average PTRs for different family types



# At the top too... the UK income tax system lacks coherence

## Income tax schedule for those aged under 65, 2010–11





# Top tax rates and taxable income elasticities

- An 'optimal' top tax rate:
  - $e$  – taxable income elasticity
  - $t = 1 / (1 + a \cdot e)$
  - where  $a$  is the Pareto parameter.
- Estimate  $e$  from the evolution of top incomes in tax return data
- Estimate  $a$  ( $\approx 1.8$ ) from the empirical distribution

# Taxable Income Elasticities at the Top

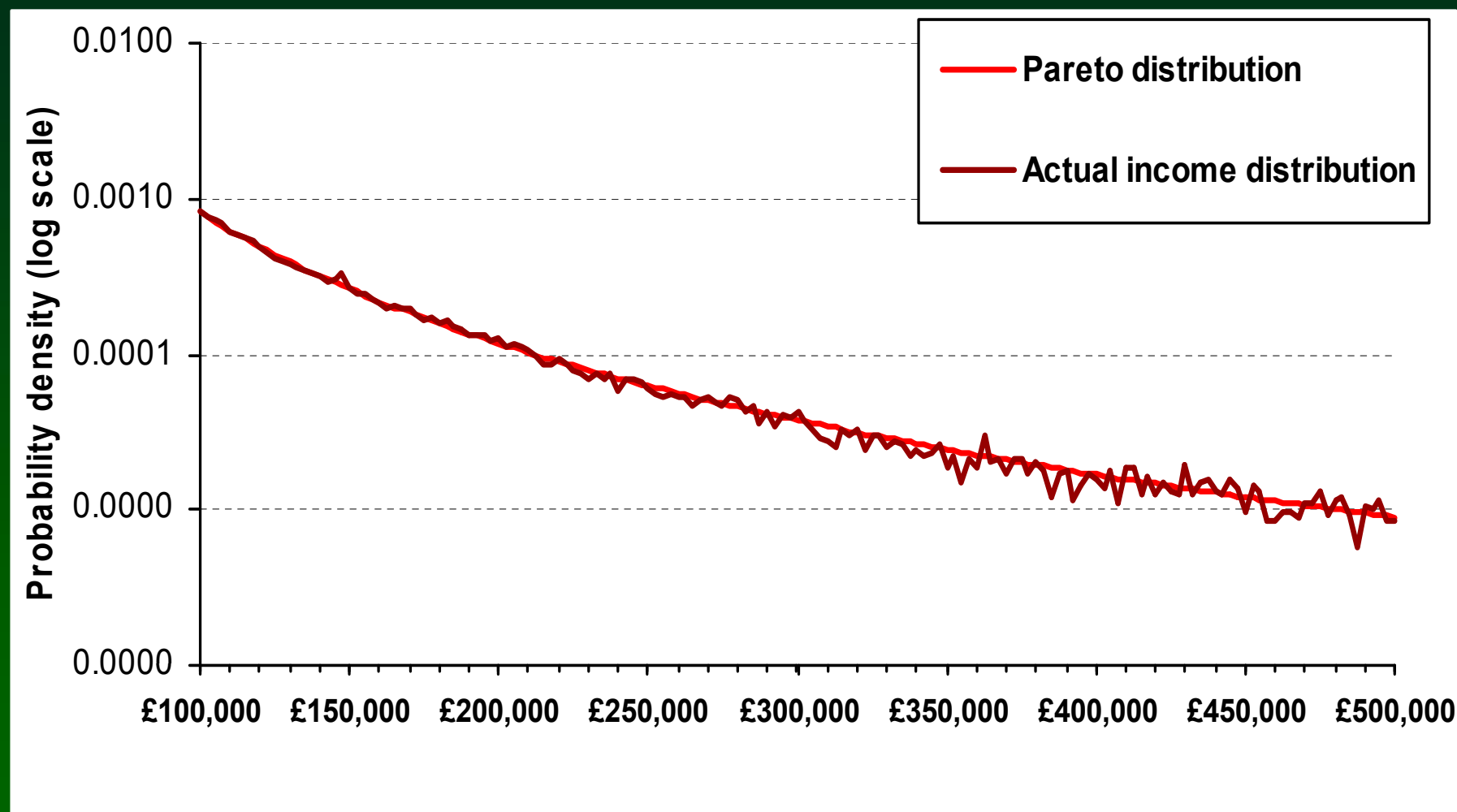
Simple Difference (top 1%)      DD using top 5-1%  
as control

|                  |                       |                       |
|------------------|-----------------------|-----------------------|
| 1978 vs 1981     | 0.32                  | 0.08                  |
| 1986 vs 1989     | 0.38                  | 0.41                  |
| 1978 vs 1962     | 0.63                  | 0.86                  |
| 2003 vs 1978     | 0.89                  | 0.64                  |
| Full time series | <b>0.69</b><br>(0.12) | <b>0.46</b><br>(0.13) |

With updated data the estimate remains in the .35 - .55 range with a central estimate of .44, but remain quite fragile

Note also the key relationship between the size of elasticity and the tax base (Slemrod and Kopczuk, 2002)

## Pareto distribution as an approximation to the income distribution



Pareto parameter quite accurately estimated at 1.8  
=> revenue maximising tax rate for top 1% of 56%.

## What about redesigning the tax rate schedule?

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- Top tax rate reform should first be directed at tax base reforms – capital gains tax and rate alignment.
- Use what we know about behavioural responses so people face strengthened work incentives:
  - parents with school age children,
  - people aged 55-70.
- People face stronger incentives at the times they are most responsive to them
- Reforms can be designed which redistribute mainly across the life-cycle
- The specific reforms we have simulated would generate large increases in employment rates

## Strengthen work incentives where they are most effective

- I. for families whose youngest child is of school age
  - reflecting the finding that the mothers of older children are more responsive to the incentives in the tax and benefit system.
- One way of achieving this:
  - make child tax credit more generous (and so means-testing more extensive) for families a child aged under five,
  - and less generous (with less means-testing) for families whose youngest child is aged five or older.
- Simulations point to a net addition to employment of over 50,000 and to earnings of nearly £1bn.

## Strengthen work incentives where they are most effective

- II. for those in their later working life, aged 55-70
  - a group which is highly responsive to incentives.
- This could be achieved in the current system by
  - raising the age of eligibility for pension credit to 70,
  - reducing to 55 the age at which the higher tax free personal allowance becomes available.
- Our simulations point to an increase in net employment of more than 150,000 and in earnings of just under £2bn.
- As with our child tax credit proposals, much of the distributional impact would consist of offsetting effects over the life-cycle.

## Summary

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- The current system is unnecessarily complicated and induces too many people not to work or to work too little
  - The rate structure of income tax should be simplified, and income tax and employee/employer contributions should be merged.
  - A single integrated benefit should be introduced rationalising the way in which total support varies with income and other characteristics.
  - Work incentives should be targeted where they are most effective
  - Top tax rate reforms should focus first on the tax base
- Placing us in a good position to address the distributional implications of other aspects of our reform package